



Research & Development

U.S Army Engineer Research & Development Center



Scope of R&D

Support the Army in Garrison



Over 150 large installations worldwide
Approximately 40% of DoD
Replacement Value: \$168.5 billion

Support to the Nation's Prosperity & Security



- US Ports & Waterways convey > 2B Tons Commerce
- Foreign Trade alone Creates > \$160B Tax Revenues
- Cumulative Flood Damage Prevention > \$290B

Support to the Army in Theater

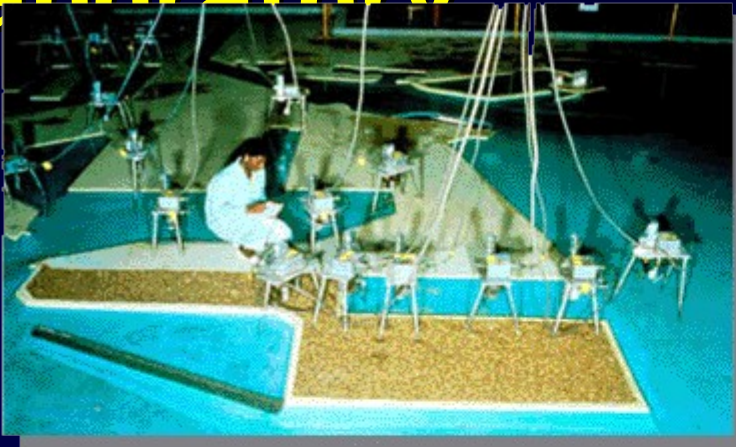


ERDC Research Areas

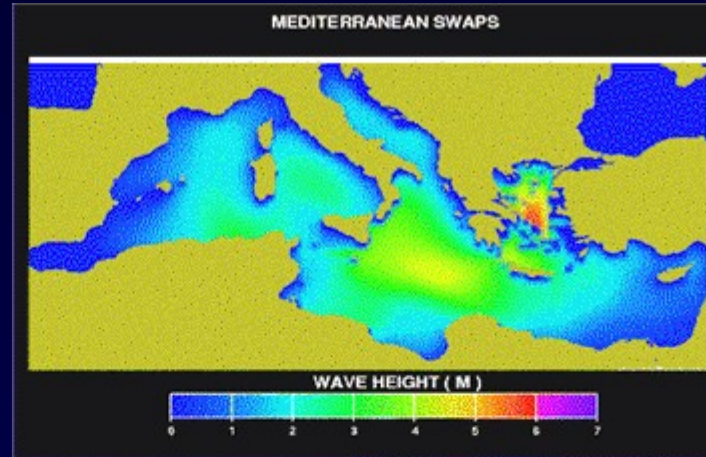
- Military Engineering
 - Mobility, Survivability, & Logistics
 - Topography
- Installations
 - Infrastructure
 - Environmental Quality
- Civil Works
 - Infrastructure
 - Environment
 - Operations



Coastal and Hydraulics Laboratory

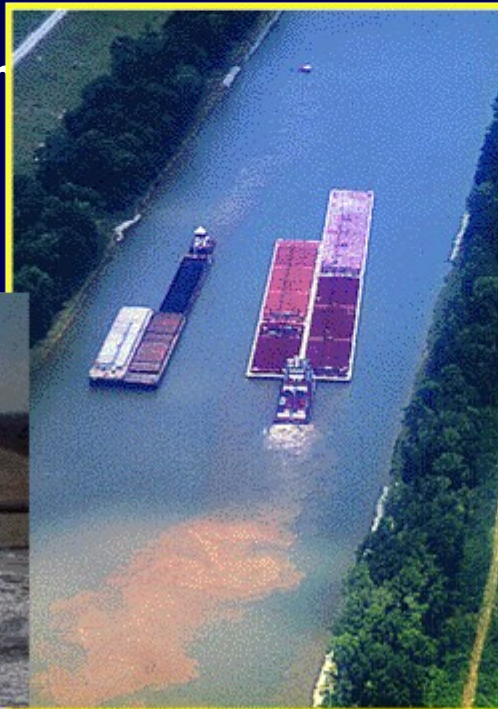


**Physical
Models
Navigation**



**Numerical
Models**

Flood Control



Sustained Engineering

Geotechnical & Structures Laboratory



Centrifuge Research



**Airfields
and
Pavement
s**



**Terrorist Threat
Protection**



Heavy Vehicle Simulator



Mobility



**Survivability & Hard
Target Defeat**



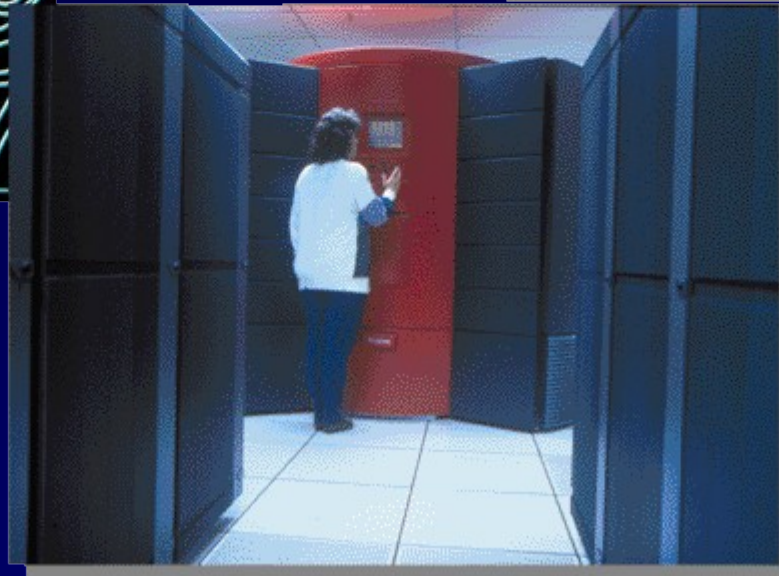
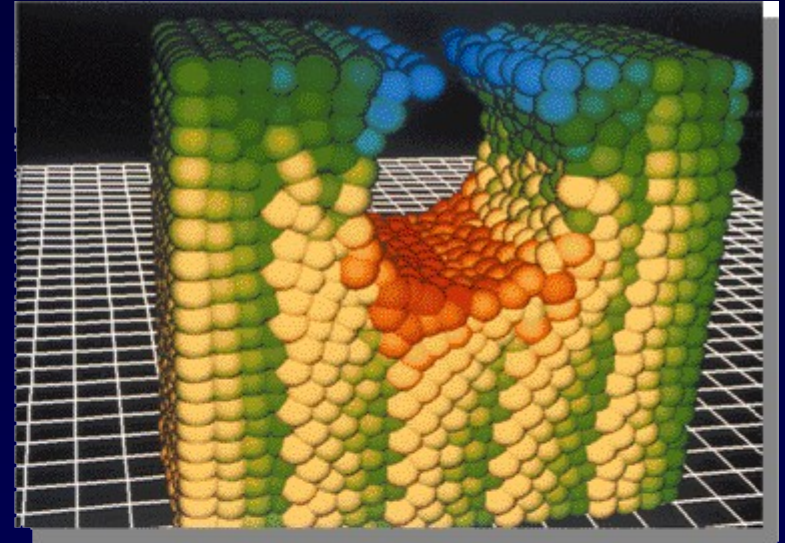
Explosives Effects



Concrete

Information Technology Laboratory

CADD/GIS Technology



**DoD High
Performance
Computing
Center**

Cold Regions Research and Engineering Laboratory



**Ice
Effects
Cold
Weather
Design
Guidance**

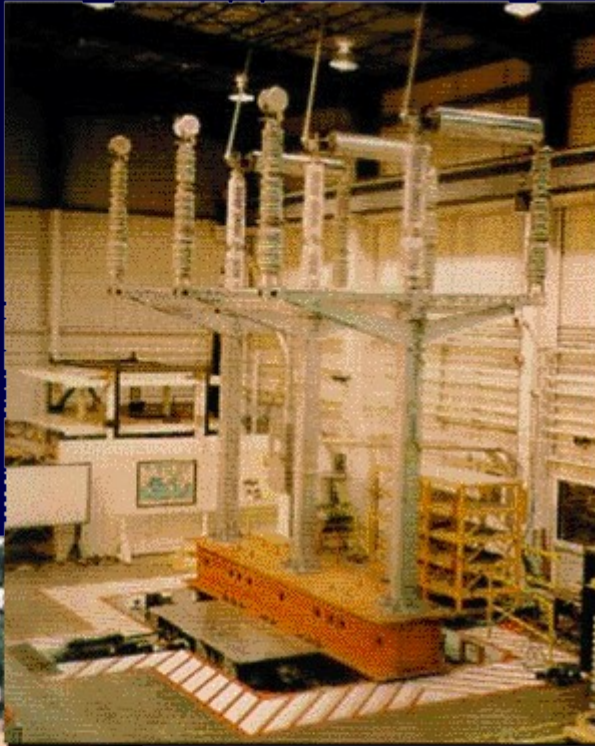


Frost Effects

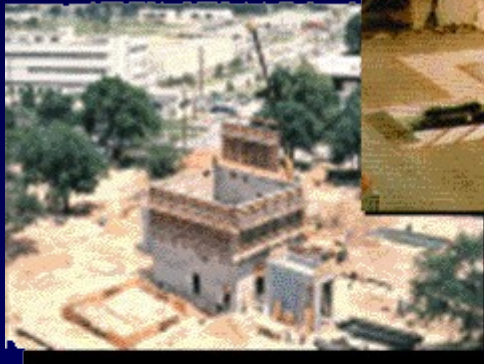


Military Engineering

Construction Engineering Research Laboratory



**Installation
Operations**

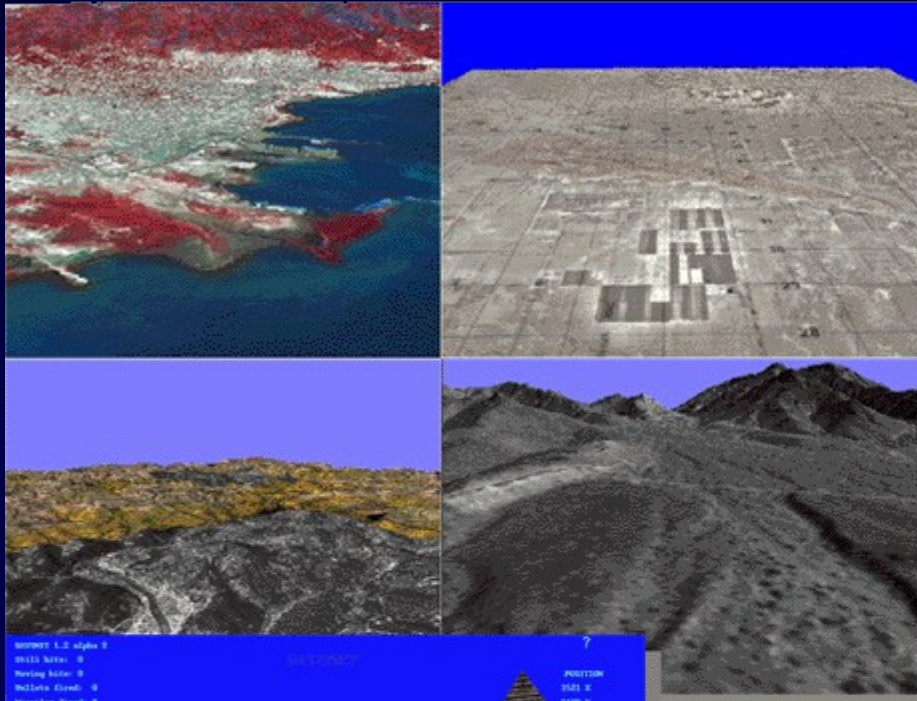


**Facilities
Acquisition and
Revitalization**



**Military Land
Management**

Topographic Engineering Center



Terrain Analysis

Temporal Analysis

Tactics & Effects

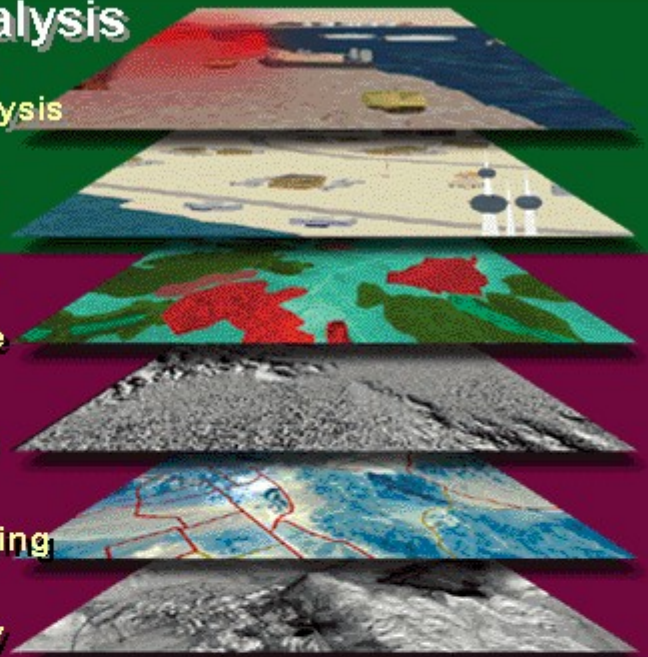
Terrain Models

Feature

Hypsometric

GeoPositioning

Imagery



**Terrain
Generation,
Reasoning
&
Visualization**

**Combat Terrain
Info Systems**



Environmental Laboratory

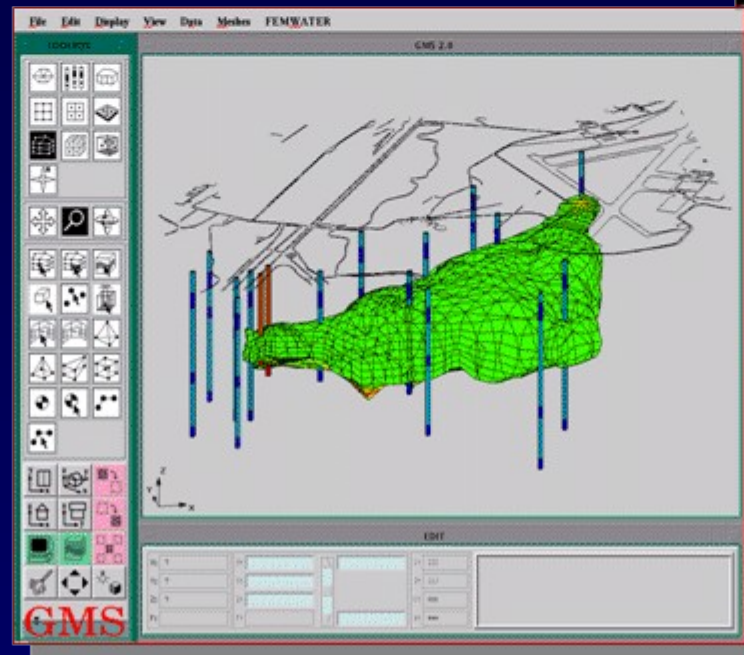
UXO



Hazardous and Toxic Waste



**Aquatic
Habitat**



**Environmental
Chemistry**

**Ground Water
Modeling**